

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

194. (New) A recombinant cell that expresses a receptor comprised of at least one T1R2 polypeptide and at least one T1R3 polypeptide that specifically binds to and/or is activated by sweet taste stimuli.

195. (New) The cell of claim 194, which is selected from the group consisting bacterial, yeast, mammalian, amphibian and insect cells.

196. (New) The cell of cell 194, wherein said cell is a prokaryotic cell.

197. (New) The cell of claim 194, wherein said cell is a eukaryotic cell.

198. (New) The cell of claim 197, wherein said eukaryotic cell is a CHO, HEK-293, COS or Xenopus oocyte.

199. (New) The cell of claim 194, wherein said T1R2 and T1R3 are derived from different species.

200. (New) The method of claim 199, wherein said T1R2 and T1R3 are of the same species.

201. (New) The method of claim 194, wherein said T1R2 is selected from mouse T1R2, rat T1R2, human T1R2 and said T1R3 is selected from mouse T1R3, rat T1R3 and human T1R3.

202. (New) The cell of claim 194, wherein T1R2 and T1R3 nucleic acid sequences are stably integrated into said cell.

203. (New) The cell of claim 194, wherein T1R2 and T1R3 nucleic acid sequences are comprised on an extrachromosomal element.

204. (New) The cell of claim 194, which comprises T1R2 and T1R3 nucleic acid sequences that are operably linked to a constitutional promoter.

205. (New) The cell of claim 194, which comprises T1R2 and T1R3 nucleic acid sequences that are operably linked to an inducible promoter.

206. (New) The cell of claim 194, which further expresses a G protein.

207. (New) The cell of claim 206, wherein said G protein is  $G_{\alpha 15}$ ,  $G_{\alpha 16}$  or gustducin.

208. (New) The cell of claim 194, wherein said T1R3 polypeptide has the amino acid sequence contained in SEQ. ID. NO: 6.

209. (New) The cell of claim 194, wherein said T1R2 polypeptide has an amino acid sequence that possesses at least 90% sequence identity to the amino acid sequence contained in SEQ. ID. NO: 6 or a fragment thereof that when expressed in association with a T1R3 polypeptide results in a functional sweet taste receptor.

210. (New) The cell of claim 209, wherein said T1R2 polypeptide has at least 95% sequence identity to the polypeptide contained in SEQ. ID. NO: 6.

211. (New) The cell of claim 209, wherein said T1R2 polypeptide has at least 96% sequence identity to the polypeptide contained in SEQ. ID. NO: 6.

212. (New) The cell of claim 209, wherein said T1R2 polypeptide has at least 97% sequence identity to the polypeptide contained in SEQ. ID. NO: 6.

213. (New) The cell of claim 209, wherein said T1R2 polypeptide has at least 98% sequence identity to the polypeptide contained in SEQ. ID. NO: 6.

214. (New) The cell of claim 209, wherein said T1R2 polypeptide has at least 99% sequence identify to the polypeptide contained in SEQ. ID. NO: 6.

215. (New) The cell of claim 209, wherein said T1R2 polypeptide is encoded by the nucleic acid sequence contained in SEQ. ID. NO: 8 or a fragment thereof that when expressed in association with a T1R3 polypeptide results in a functional sweet taste receptor.

216. (New) The cell of claim 209, wherein said T1R2 polypeptide is encoded by a nucleic acid sequence that specifically hybridizes to the sequence contained in SEQ. ID. NO: 10 under stringent hybridization conditions.

217. (New) The cell of claim 194, wherein said T1R3 polypeptide has the amino acid sequence contained in SEQ. ID. NO: 7.

218. (New) The cell of claim 194, wherein said T1R3 polypeptide has the amino acid sequence contained in SEQ. ID. NO: 7 or a fragment therewith that when expressed in association with a T1R2 polypeptide results in a functional sweet taste receptor.

219. (New) The cell of claim 218, wherein said T1R3 polypeptide exhibits at least 95% sequence identity to the polypeptide compound in SEQ. ID. NO: 7.

220. (New) The cell of claim 218, wherein said T1R3 polypeptide exhibits at least 96% sequence identity to the polypeptide contained in SEQ. ID. NO: 7.

221. (New) The cell of claim 218, wherein said T1R3 polypeptide exhibits at least 97% sequence identity to the polypeptide contained in SEQ. ID. NO: 7.

222. (New) The cell of claim 218, wherein said T1R3 polypeptide exhibits at least 98% sequence identity to the polypeptide contained in SEQ. ID. NO: 7.

223. (New) The cell of claim 218, wherein said T1R3 polypeptide exhibits at least 99% sequence identity to the polypeptide contained in SEQ. ID. NO: 7.

224. (New) The cell of claim 218, wherein said T1R3 polypeptide is encoded by the nucleic acid sequence contained in SEQ. ID. NO: 9.

225. (New) The cell of claim 218, wherein said T1R3 polypeptide is encoded by a nucleic acid sequence that hybridizes under stringent hybridization conditions to the nucleic acid sequence contained in SEQ. ID. NO: 9 or a fragment thereof that when expressed in association with a T1R2 polypeptide yields a functional sweet taste receptor.

226. (New) The cell of claim 194, which expresses a T1R2 polypeptide having SEQ. ID. NO: 6 and a T1R3 polypeptide having SEQ. ID. NO: 7.

227. (New) The cell of claim 226, which is a eukaryotic cell.

228. (New) The cell of claim 227, which is a mammalian, yeast, amphibian or insect cell.

229. (New) The cell of claim 227, which is a CHO, COS, HEK-293 or *Xenopus* oocyte.

230. (New) The cell of claim 229, which is an HEK-293 cell.

231. (New) The cell of claim 229, which stably expresses said T1R2 and T1R3 polypeptides.

232. (New) The cell of claim 229, which transiently expresses said T1R2 and T1R3 polypeptides.

233. (New) The cell of claim 226, which further expresses a G protein.

234. (New) The cell of claim 233, wherein said G protein is  $G_{\alpha 15}$  and  $G_{\alpha 15}$  or gustducin.